

REMARKS

The Examiner rejected Claim 1 under 35 U.S.C. 102(b), as being anticipated by Mori. The Examiner contended that Mori taught an apparatus for detecting particles comprising an electrically conducting detection grid having two or more interlocking networks where each network has a plurality of tracing, where adjacent tracings have a specified separation or spacing and which in a particle free environment the grid is an open circuit and where a pulse is generated only when particles exist, a nonconducting substrate which supports the grid, a power supply coupled to the grid, and a means for detecting electrical changes across the grid.

Applicant contends that amended Claim 1 is no longer anticipated by Mori nor is it obvious in light of Mori or in light of Mori and Mehta. Claim 1, as amended, indicates that the dust particles are electrically conducting. Support for this is found on page 5, lines 2 and 3. It also claims that the nonconducting substrate is mounted on a specified surface and that the environment to which the grid is exposed is air or a vacuum. Support for this is found on the following pages and lines: page 3, line 2, page 6, lines 11, 14, 16, and 18. Also, page 5, line 13 teaches that when the dust particle or particles bridge the elements of the grid, the particles generally vaporize within a few seconds after forming indicating that the dust particles are moving through a gas to impact on the elements of the detecting grid and are vaporized back into that gas generally seconds later. Amended Claim 1 also teaches that the dust particle bridge creates a transient short circuit which is taught on page 5, line 9.

Mori in the abstract, summary of the invention, and in Claim 1 teaches that the invention detects metallic particles in a liquid. More specifically, in the abstract and summary, the patent teaches that the device detects metallic particles floating on a body of oil. Thus, to detect these

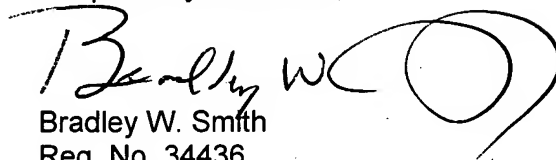
particles the detector must be positioned in the oil- metallic particle layer not attached to a specified, fixed surface where the particles will settle on the detection grid. The same applies to Mehta who in the abstract and summary teaches that the detector, which is the subject of the cited patent, detects particles which are suspended in a fluid. Mehta, in the summary and Claim 1, teaches that this detector employs a conduit through which the suspended particles move from a first fluid to a second fluid. Both cited patents, teach that their detectors operate in a fluid environment where the particles are suspended in the fluid. Applicant in independent Claim 1 teaches that his detector is mounted on a fixed surface in an environment where the medium is air or a vacuum and that the particles settle out of the air or fall through the vacuum and land on the detector. Applicant does not teach of the need of a conduit nor the requirement that the particles be suspended in the medium. Neither of the cited references teach that the voltage source should be sized so as to provide for the vaporization of the particles which allows for the continued monitoring of new dust particles.

The Examiner rejected Claims 2 -8 under 35 U.S.C. 103(a) as being unpatentable over Mori in view of Mehta. Since Applicant contends that amended, independent Claim 1 now overcomes the reasons for rejection as cited by the Examiner and since Claims 2 - 8 are dependent claims. The rejection for the dependent claims becomes moot.

CONCLUSION

For the foregoing reasons, Applicants respectfully request that the Examiner allow the Claims as indicated on the attached complete listing of claims.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Bradley W. Smith", with a large, stylized circular flourish at the end.

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